

and litter. They form predominant litter fauna of Tropical Rain Forests in India. A fair collection of parholaspid material has been made during the course of surveys to explore the macrochelid fauna of the forest floor of Namdapha National Park in Arunachal Pradesh in the area of northeast India flanking Burma. A number of known species of parholaspid mites together with many new species await to be reported and described. Here only a report on the habitats and distribution of *Gamasholaspis browningi* (Bregetova and Koroleva) is presented. The collections have been made by me and the material is in the collection of the Zoological Survey of India, Calcutta.

PARHOLASPIDAE Krantz, 1960

*Gamasholaspis* Berlese

***Gamasholaspis browningi*** (Bregetova & Karoleva, 1960)

*Gamasholaspis browningi* occurs widely in India. Bhattacharyya (1977) has redescribed the species based on material collected in the Kumaon Himalaya. The following material has been collected from other geographical regions of India. The

species also has been collected abundantly from Kumaon Himalaya. Since the redescription is based on Kumaon material, the inclusion of collection data further from the region is excluded to avoid unnecessary repetition.

**Material examined:** 2 females, West Bengal : Darjeeling, Botanical Garden, 13. xi.1973, ex decaying grasses and leaves; 1 female, Darjeeling, Labong, Hill Cart Road, 14.xi. 1973, under humus; 1 female, Darjeeling, Hill Card Road, 14.xi.1973, ex decaying plant parts; 4 females, Darjeeling, North Point, 14.xi.1973, ex decaying leaves; Meghalaya: Shillong, Umpling, 14.vi. 1974, ex decaying vegetation; 1 female, Sikkim: near Palace, Gangtok, 10.xi.1973, ex grass heap; 2 females, Gangtok, Sundarigaon, 11.xi.1973, ex cultivated soil mixed with pigdung.

**Distribution in India:** Meghalaya (new record), Sikkim (new record), West Bengal (new record) and Kumaon Hills in Uttar Pradesh.

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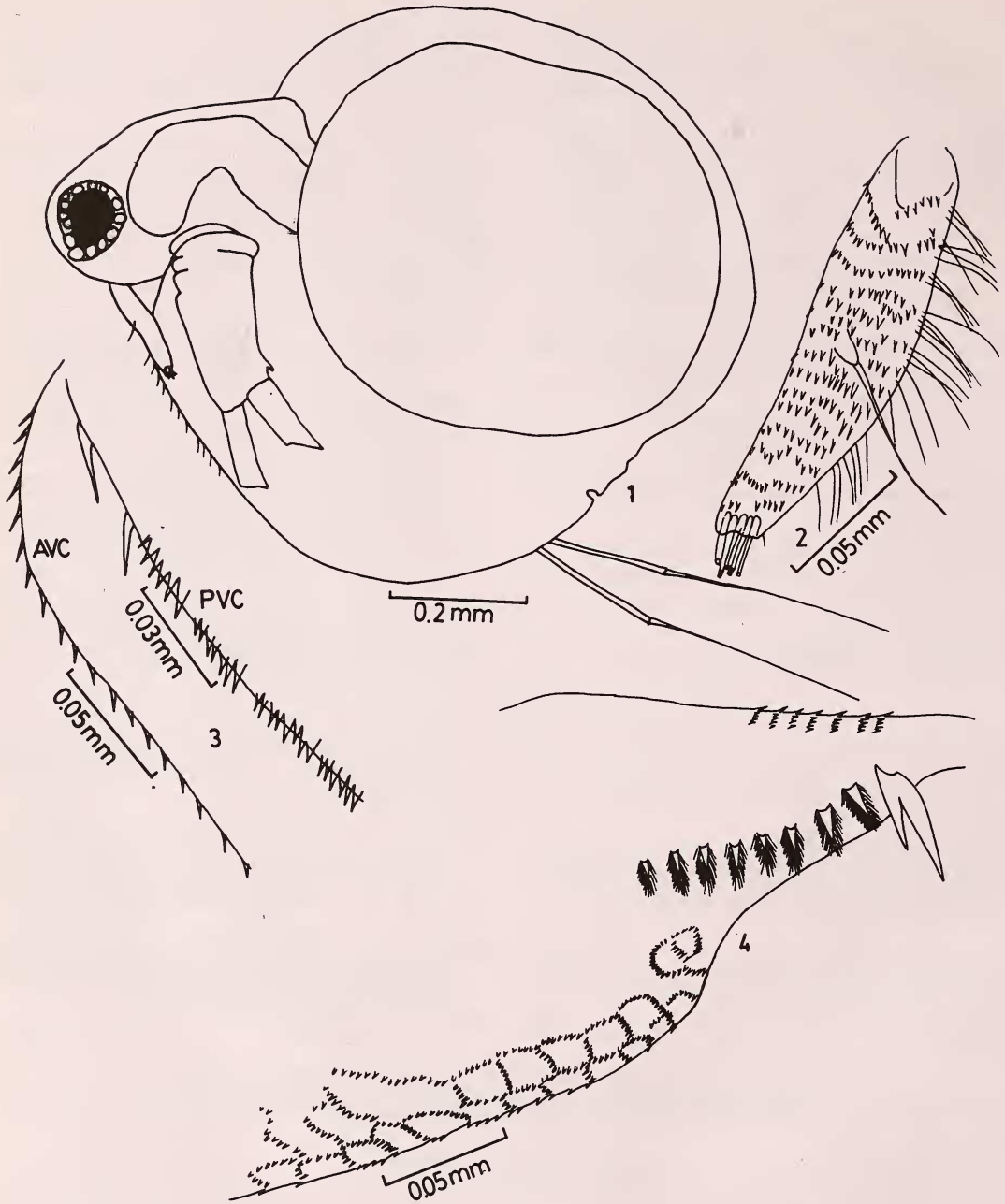
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#### 29. *MOINA WEISMANNI* ISHIKAWA, 1896 —A NEW RECORD FOR WEST BENGAL (CRUSTACEA : CLADOCERA)

(With eight text-figures)

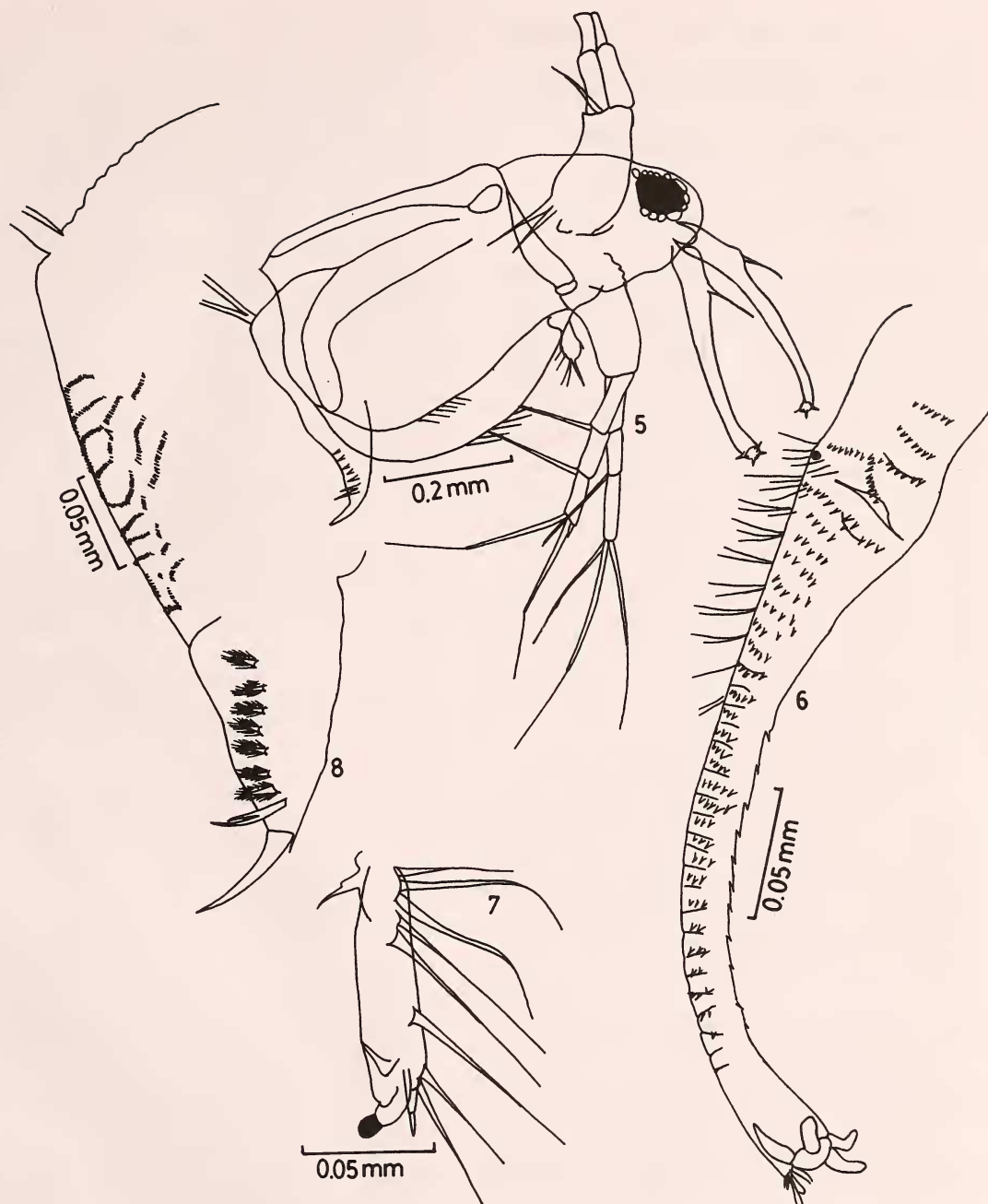
India has four species of *Moina* recorded among which *Moina micrura* is considered to be one of the eurytopic species occurring in several habitats. *Moina weismanni* Ishikawa was first reported from India at Mandvi (Gujarat State) by

Brehm (1953). There was no subsequent record of this species from India except from Madurai, Tamil Nadu (Venkataraman and Krishnaswamy 1984). During the course of our survey of the wetlands of Hughli District, West Bengal we



Figs. 1-4. *Moina weismanni* Ishikawa – female

1. Lateral view; 2. Antennule; 3. AVC (antero-ventral corner) and PVC (Postero-ventral corner) of the valve;  
 4. Postabdomen.



Figs. 5-8. *Moina weismanni* Ishikawa - male  
5. Lateral view; 6. Antennule; 7. Leg I; 8. Postabdomen.

came across several female and male specimens of *M. weismanni*. The present study shows that *M. weismanni* also occurs in North-Eastern India.

Family MOINIDAE Goulden, 1968  
Genus *Moina* Baird, 1850

***Moina weismanni*** Ishikawa, 1896  
(Figs. 1-8)

**FEMALE:** Body size 1.23 mm. The apparent supraocular depression and broadly rounded head are the characteristic features of this organism. The eye is large and is situated near the front margin of the head (Fig. 1). The antennule originates from the ventral side of the head just below the eye, ornamented with rows of small spines and hair-like processes at the posterior margin up to the tip (Fig. 2). Ventral rim of the valves is provided with seventeen to twentyone setae, followed by groups of shorter spines numbering about five to seven and increasing in size posteriorly (Fig. 3). The postabdomen has a row of seven to nine feathered teeth along with a bident tooth on either side. The dorsal surface of the postabdomen is also provided with small spines (Fig. 4). The claw is long with a 'basaldorn' at the proximal region.

**MALE:** Body size 0.79 mm. Head with a prominent supraocular depression above the eye on the dorsal side (Fig. 5). A pair of antennules are situated just below the eye. Four hooks originate at the tip of the antennule which is a characteristic feature of this species (Fig. 6). First leg has a weakly developed hook (Fig. 7). Shape

of the postabdomen is similar to that in females (Fig. 8) except for the presence of vas-deferens.

**Distribution:** Mandvi, Gujarat (Brehm 1953); Madurai, Tamil Nadu (Venkataraman and Krishnaswamy 1984); Japan (Ishikawa 1896), China (Sieh-Chin and Nan-Shan 1972, Sars 1903) and Cambodia (Brehm 1954).

**Remarks:** The size of the female varies greatly. Venkataraman and Krishnaswamy (1984) mentioned that the laboratory-fed population grow up to 1.32 mm; however the size of the field population is up to 1.00 mm only. The present material shows the size of 1.23 mm in the field itself. Goulden (1968) reported that variation in size is a common feature for all species of *Moina*. *M. weismanni* can be confused with *M. micrura* which is a commonly occurring species. However, the presence of 4 hooks in the male antennule, structure and the number of spines on the postabdomen and the first leg of male are the important characters which differentiate *M. weismanni* from other species of *Moina* occurring in India.

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